

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-3, 5-10, 12-14, 16-17, 19-21, 23, 25-32 and 34-36 are currently pending.

Initially, Applicants would like to thank Examiner Bolda for his courtesy and helpfulness during the personal interview held with the undersigned on July 18, 2006. The substance of the interview is described below. Also, Applicants appreciate the indication in the Official Action that the previously raised objections to the drawings, and rejections under 35 U.S.C., first and second paragraph, have been withdrawn.

Claims 1-3, 5-10, 12-14, 16-17, 19-21, 23, 25-32 and 34-36 continue to be rejected under 35 U.S.C. 102 (b) as being anticipated by Kim et al. (U. S. Patent Application Number 2001/0043390). As discussed during the interview, Applicants' claim 1 combination recites, *inter alia*, "wherein said residual cladding layer has a first thickness over said first gain section, and a second thickness over said second gain section, said first thickness being different than said second thickness." It is respectfully submitted that the Kim et al. patent publication fails at least to anticipate this aspect of Applicants' claim 1 combination.

As discussed during the interview, like Applicants' exemplary embodiment, Kim et al. seeks to provide a polarization in sensitive SOA. Moreover, Kim et al. does disclose a cladding layer 50, which cladding layer is disposed above the upper waveguide layer 40. See Figure 2 and page 2, paragraph [0021] of Kim et al.

However, the cladding layer 50 of Kim et al. is not disclosed by Kim et al. as varying in thickness. Only Applicants' residual cladding layer is taught to vary in thickness, which thickness is selected to provide varying gain characteristics.

In the previous Office Action, it was suggested that the upper waveguide 40 could be considered to be a cladding layer which varies in thickness. However, as discussed during the interview, the upper waveguide 40 is more appropriately considered to be part of the active region of the SOA of Kim et al. This is true for at

least two reasons. First, the upper waveguide 40 of Kim et al. is formed of the same basic material (InGaAsP) as the active layer 30. See paragraph [0021] of Kim et al. Second, Kim et al. specifically describes a separate cladding layer 50 (formed of a different material, p-InP) which, it is respectfully submitted, makes it unreasonable to consider the upper waveguide layer 40 as also being a cladding layer.

Similar comments apply to independent claims 12, 23, and 34 as well as dependent claims 2-3, 5-10, 13-14, 16-17, 19-21, 25-32 and 35-36.

Accordingly reconsideration and withdrawal of the rejection of claims 1-3, 5-10, 12-14, 16-17, 19-21, 23, 25-32 and 34-36 under 35 U.S.C. §102(b) over Kim are respectfully requested.

All of the objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that this application is in condition for allowance and a notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response or the application in general, he is invited to contact the undersigned at (540) 361-1863.

Respectfully submitted,

POTOMAC PATENT GROUP PLLC

By:



Steven M. duBois
Registration No. 35,023

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Potomac Patent Group, PLLC
P.O. Box 270
Fredericksburg, VA 22404
(540) 361-1863